

WHAT IS CLAIMED IS:

- 2 1. A format for optical analysis of samples comprising:
a light input;
4 an input light guide in optical communication with said light input;
an input reflector in optical communication with said input light guide;
6 an output reflector in optical communication with said input reflector;
a sample cavity disposed between said input reflector and said output reflector;
8 an output light guide in optical communication with said output reflector; and
a light output,
10 wherein said light input, said input light guide, said input reflector, said output
reflector, said output light guide, and said light output comprise an approximately
12 planar light transmission path, said format further comprising a lid disposed
approximately parallel to said light transmission path.
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2. The format of claim 1 further comprising a venting channel connected to said
16 sample cavity.
- 18 3. The format of claim 1 wherein said input light guide defines an input light
path, and wherein said input reflector is disposed at about a 45-degree angle to said
20 input light path.
- 22 4. The format of claim 3 wherein said output light guide defines an output light
path, and wherein said output reflector is disposed at about a 45-degree angle to said
24 output light path.
- 26 5. The format of claim 1 further comprising a reagent disposed within said
sample cavity.
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6. The format of claim 5 wherein at least a portion of said lid adjacent said
30 sample cavity is provided with a reagent thereon.

7. The format of claim 1 wherein said format is adapted to be used with a measuring instrument having source optics and wherein said input light guide is of sufficient length to isolate said sample cavity from said source optics.

8. A format for optical analysis of a sample comprising:
an input light guide having an input reflector disposed at one end thereof;
an output light guide having an output reflector disposed at one end thereof;
and
a light transmission segment disposed between said input reflector and said output reflector, said light transmission segment so disposed as to allow light to travel through a light transmission path between said input reflector and said output reflector, said light transmission segment further having a sample cavity and a lid, said lid not intersecting said light transmission path.

9. The format of claim 8 wherein said lid has a reagent printed thereon.

10. The format of claim 8 further comprising a vent connected to said sample cavity.

11. The format of claim 8 wherein said input light guide has an input light guide height and said light transmission segment has a light transmission segment height greater than said input light guide height.

12. The format of claim 11 wherein said input light guide has a height of approximately 0.04 inches and said light transmission segment has a height of approximately 0.08 inches.

13. The format of claim 8 wherein said input light guide defines an input light path and said input reflector is disposed at an angle of about 45 degrees from said input light path.

14. The format of claim 8 wherein said output light guide defines an output light path and said output reflector is disposed at an angle of about 45 degrees from said output light path.

15. A method of optically analyzing a fluid comprising:

placing a sample-side surface of an optical format having a sample cavity against a skin surface;

puncturing said skin surface so as to cause sample fluid to gather at said skin surface;

drawing said sample fluid from said skin surface into said optical cavity;

allowing said sample fluid to interact with a reagent provided on a lid adjacent said sample cavity;

directing light through said sample cavity; and

detecting light which has passed through said sample cavity.

16. A format for the optical testing of samples comprising:

an input light path;

an output light path; and

a sample cavity disposed between said input light path and said output light path, said sample cavity having a main cavity portion and a venting cavity connected to said main cavity portion, said main cavity portion having a width of about 0.007 inches.

17. The format of claim 16 wherein said venting cavity has a width of about 0.003 inches or narrower.

18. The format of claim 17 wherein said main cavity portion has a width of about 0.005 inches and said venting cavity has a width of about 0.002 inches.

19. A format for optical analysis of a sample comprising:

an input light guide having an input reflector disposed at one end thereof;

an output light guide having an output reflector disposed at one end thereof;

2 a light transmission segment disposed between said input reflector and said
output reflector, said light transmission segment so disposed as to allow light to travel
4 through a light transmission path between said input reflector and said output
reflector, said light transmission segment further having a sample cavity and a lid,
said lid not intersecting said light transmission path; and
6 a lancet having a first end for collecting test material and a second end for
depositing test material within said sample cavity.

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20. The format of claim 19 wherein said sample cavity has a main cavity portion
10 and a venting cavity connected to said main cavity portion, said main cavity portion
having a width of about 0.007 inches.